

Amendments to the Claims:

Please amend the claims as instructed in the marked-up version of the Listing of Claims presented below. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1-28. (Canceled).

29. (Previously Amended) A method of operating a latch assembly having a ratchet releasably engagable with a pawl, the method comprising:

pivoting a lever about a pivot point substantially fixed with respect to the lever and located in a first position with respect to a body of the latch apparatus, the lever incapable of exerting sufficient motive force to release the ratchet from engagement with the pawl when the pivot point is located in the first position; moving the lever and the pivot point away from the first position with respect to the body of the latch apparatus while the lever remains at least partially actuated; moving the lever and the pivot point to a second position with respect to the body of the latch apparatus while the lever remains at least partially actuated; and moving the pawl with the lever to release the ratchet from engagement with the pawl by moving the lever and the pivot point toward the second position.

30. (Original) The method as claimed in claim 29, wherein moving the pawl occurs after the pivot point of the lever is moved to the second position.

31. (Previously Amended) The method as claimed in claim 29, wherein moving the pawl occurs while the lever is moved and while the lever remains pivoted.

32. (Original) The method as claimed in claim 29, wherein moving the lever to move the pivot point to the second position includes translating the lever with respect to the pawl.

33. (Previously Amended) The method as claimed in claim 29, wherein moving the lever to move the pivot point to the second position includes rotating the lever with respect to the pawl.

34. (Original) The method as claimed in claim 29, wherein moving the lever to move the pivot point to the second position includes translating and rotating the lever with respect to the pawl.

35. (Original) The method as claimed in claim 29, further comprising:
providing an actuator coupled to the lever; and
actuating the actuator to move the lever.

36. (Original) The method as claimed in claim 29, further comprising an over-center device coupled to the lever, the over-center device movable between two stable positions corresponding to the first and second positions of the pivot point.

37-55. (Canceled)

56. (Currently Amended) A latch assembly, comprising:
a pawl having:
 an unlatched position; and
 a latched position;
a lever movable with respect to the pawl;
a rotatable member coupled to the lever and mounted for rotation about an axis,
wherein
 the lever is movable by rotation of the rotatable member coupled thereto, the
 rotatable member rotatable between:
 a first position in which the lever is actuatable to move the pawl to the
 unlatched position; and
 a second position in which actuation of the lever is incapable of generating
 movement of the pawl to the unlatched position, movement of the
 rotatable member from the second position to the first position during
 actuation of the lever generating movement of the pawl; and
the rotatable member is part of an over-center device coupled to the lever.

57. (Original) The latch assembly as claimed in claim 56, wherein the lever is movable between an unlocked position and a locked position corresponding to the first and second positions of the rotatable member, respectively, the lever pivotable about substantially the same location with respect to the lever in the unlocked and locked positions.

58. (Previously Amended) The latch assembly as claimed in claim 56, wherein:
the rotatable member is a first rotatable member; and
the lever is coupled to the first rotatable member by a second rotatable member
coupled to the lever and to the first rotatable member.

59. (Original) The latch assembly as claimed in claim 58, wherein:
first and second connections are defined between the lever and the second rotatable member and between the second rotatable member and the first rotatable member, respectively; and
at least one of the first and second connections is a lost-motion connection.

60. (Canceled).

61. (Original) The latch assembly as claimed in claim 56, wherein the lever is rotatably coupled to the rotatable member.

62-63. (Canceled).

64. (Original) The latch assembly as claimed in claim 56, wherein:
the lever is coupled to a first end of the rotatable member; and
the rotatable member is rotatable about a second end opposite the first end.

65. (Original) The latch assembly as claimed in claim 56, wherein the first position of the rotatable member is one of a range of positions of the rotatable member in which the lever is actuatable to move the pawl to the unlatched position.

66. (Original) The latch assembly as claimed in claim 56, wherein the second position of the rotatable member is one of a range of positions of the rotatable member in which the lever is incapable of generating movement of the pawl to the unlatched position.

67. (Original) The latch assembly as claimed in claim 56, wherein the lever is incapable of moving the pawl in the second position of the rotatable member.

68-80. (Canceled).

81. (Previously Amended) A latch assembly, comprising:
 - a pawl movable between a latched position and an unlatched position;
 - a lever having
 - at least one unlocked position in which the lever is actuatable to move the pawl to the unlatched position; and
 - at least one locked position in which the lever is incapable of moving the pawl to the unlatched position;
 - an over-center device coupled to the lever at a first pivot and moveable about a second pivot, the over-center device having
 - a first stable position in which the lever is positioned in the unlocked position by the over-center device with respect to the pawl;
 - a second stable position in which the lever is positioned in the locked position by the over-center device with respect to the pawl; and
 - at least one unstable position located between the first and second stable positions, the at least one unstable position located along a line extending through the first and second pivots when the over-center device is in either stable position, wherein actuation of the lever urges the over-center device away from the unstable position and toward either of the first and second stable positions.
82. (Original) The latch assembly as claimed in claim 81, further comprising a ratchet releasably engagable with the pawl and having latched and unlatched positions corresponding to the latched and unlatched positions of the pawl.
83. (Cancelled).
84. (Previously Amended) The latch assembly as claimed in claim 82, wherein the first pivot is located in substantially the same location with respect to the lever in at least one unlocked position of the lever and in at least one locked position of the lever.

85. (Previously Amended) The latch assembly as claimed in claim 81, wherein the over-center device includes a first element and a second element pivotably coupled to one another at a third pivot, the first element also coupled to the lever.

86. (Previously Amended) The latch assembly as claimed in claim 85, wherein the first element is pivotably coupled to the lever at the first pivot.

87. (Previously Amended) The latch assembly as claimed in claim 86, wherein:
the second element is pivotable about the second pivot; and
the first and second stable positions and the at least one unstable center position is defined by different pivotal positions of the first element with respect to the second element.

88. (Previously Amended) The latch assembly as claimed in claim 81, wherein the first and second stable positions are on opposite sides of the line.

89. (Original) The latch assembly as claimed in claim 85, wherein the first and second elements are pivotably coupled together by a lost-motion connection.

90. (Previously Amended) The latch assembly as claimed in claim 85, wherein:
the second element is pivotable about the second pivot; and
the latch assembly further comprising an angle between the line extending through the first and second pivot points and a second line extending through the first and third pivot points, the angle having different sizes defined by different relative positions of the first element with respect to the second element, the angle limited to acute angle sizes.

91. (Currently Amended) The latch assembly as claimed in claim 85, wherein: the second element has a ~~third~~ fourth pivot point about which the second element is pivotable, the ~~third~~ fourth pivot point located a distance from the first pivot point, the latch assembly further comprising an angle between a first line extending through the first and second pivot points and a second line extending through the first and ~~third~~ fourth pivot points, the angle having different sizes defined by different relative positions of the first element with respect to the second element, the angle limited to obtuse angle sizes.

92. (Previously Amended) The latch assembly as claimed in claim 85, wherein the second element is movable to cam against the first element.

93. (Cancelled)

94. (Original) The latch assembly as claimed in claim 85, wherein at least one of the first and second elements has a rotational range limited by at least one stop in at least one of the locked and unlocked positions of the over-center device.

95. (Original) The latch assembly as claimed in claim 85, wherein the first and second elements are rotatable through respective ranges of positions limited only by a range of movement of the lever.

96. (Original) The latch assembly as claimed in claim 81, wherein the over-center device includes first and second elements movable with respect to one another, the first element coupled to the lever and positioned to ride upon a surface of the second element that is inclined with respect to the first element.

97. (Previously Amended) The latch assembly as claimed in claim 81, wherein the over-center device includes first and second elements movable with respect to one another, the second element rotatable about a second pivot, the first element coupled to the lever and positioned to ride upon a surface of the second element.

98. (Previously Amended) A method of operating a latch assembly, comprising:

- providing a lever coupled to a pawl and movable with respect to the pawl, the lever having a first position with respect to the pawl in which actuation of the lever is incapable of moving the pawl sufficiently to unlatch the latch assembly;
- moving at least a portion of an over-center device about a first pivot from a first stable position toward a center position, the over-center device coupled to the lever at a second pivot, the center position located along a line extending through the first and second pivots;
- moving the at least a portion of the over-center device past the center position toward a second stable position;
- moving the lever from the first position with respect to the pawl to a second position with respect to the pawl responsive to movement of the at least a portion of the over-center device;
- actuating the lever in the second position; and
- moving the pawl to unlatch the latch assembly responsive to actuation of the lever in the second position.

99. (Original) The method as claimed in claim 98, wherein the lever is moved from the first position with respect to the pawl to the second position with respect to the pawl during movement of the over-center device from the first stable position toward the center position.

100. (Original) The method as claimed in claim 98, wherein the lever is moved from the first position with respect to the pawl to the second position with respect to the pawl during movement of the over-center device past the center position toward the second stable position.

101. (Original) The method as claimed in claim 98, wherein the over-center device includes first and second elements rotatably coupled to one another, the second element also coupled to the lever, the method further comprising:

rotating the first element of the over-center device;
rotating the second element of the over-center device responsive to rotation of the first element; and
moving the lever responsive to rotating the second element of the over-center device coupled to the lever.

102. (Original) The method as claimed in claim 101, further comprising stopping rotation of at least one of the first and second elements of the over-center device by a stop, the over-center device in the first stable position when the at least one of the first and second elements is stopped by the stop.

103. (Original) The method as claimed in claim 101, further comprising stopping rotation of at least one of the first and second elements of the over-center device by a stop, the over-center device in the second stable position when the at least one of the first and second elements is stopped by the stop.

104. (Original) The method as claimed in claim 98, wherein the over-center device includes a first element movably coupled to a second element, the method further comprising riding the first element upon a surface of the second element inclined with respect to the first element.

105. (Original) The method as claimed in claim 98, wherein the over-center device includes a first element movably coupled to a second element, the method further comprising riding the first element upon a surface of the second element as the second element rotates about an axis.

106. (Previously Amended) The method as claimed in claim 98, wherein actuating the lever includes pivoting the lever about the second pivot.

107. (Previously Amended) The method as claimed in claim 106, wherein moving the lever includes moving the second pivot with respect to the pawl.

108. (Previously Amended) The method as claimed in claim 106, wherein the second pivot is located in substantially the same position with respect to the lever in the first and second positions of the lever.

109. (Original) The method as claimed in claim 98, wherein the over-center device is biased toward at least one of the first and second stable positions and away from the center position upon movement of the over-center device to a corresponding side of the center position.

110. (Original) The method as claimed in claim 98, wherein:

the over-center device has a first element and a second element pivotably coupled to the first element and coupled to the lever;

the first element has a range of pivot positions with respect to the second element, the range of pivot positions including the center position; and

moving the over-center device includes pivoting one of the first and second elements with respect to the other of the first and second elements.

111. (Previously Amended) The method as claimed in claim 98, wherein:

the over-center device includes a first element pivotably coupled at a third pivot to a second element and pivotable about the first pivot;

the lever is pivotably coupled to the second element at the second pivot,

the method further comprising moving the second pivot point across a line passing through the first and second pivots, the line defining the center position of the over-center device.

112. (Previously Amended) The method as claimed in claim 98, wherein moving the lever includes at least one of pushing and pulling the over-center device against the lever.

113. (Original) The method as claimed in claim 98, wherein moving the lever includes pivoting the lever with respect to the over-center device.